

**Summary of Safety and Effectiveness**  
**StealthStation® System Advanced Contour Registration Software Module**

**I. Manufacture:**

Medtronic Surgical Navigation Technologies  
826 Coal Creek Circle  
Louisville, CO 80027 USA  
Telephone Number: (720) 890-3200  
Fax Number: (720) 890-3500

*FEB 12 2003*

**II. Contact:**

Victoria G. Rendon  
Clinical and Regulatory Affairs Associate  
Medtronic Surgical Navigation Technologies

**III. Product Name/ Classification Name:**

Product Name: **StealthStation® System Advanced Contour Registration Software Module**  
Classification Name: **Stereotaxic Instrument** (21 CFR 882.4560)  
Classification Panel: **84 HAW**

**IV. Date Summary Submitted**

January 10, 2003

**V. Description of Device Modification:**

This submission describes updates made to the StealthStation® System to include software algorithms that facilitates a different registration method.

**VI. Substantial Equivalence:**

The StealthStation® System Advanced Contour Registration Software Module was shown to be substantially equivalent to the StealthStation System cleared in previous 510(k)'s. As required by risk analysis, all verification and validation activities were performed by designated individual(s) and the results demonstrated substantial equivalence.

**VII. Indications For Use:**

The indications for use for the StealthStation® System Advanced Contour Registration Software Module are identical to the StealthStation® System indications for use. The indications for use are as follows:

The StealthStation® System is intended as an aid for precisely locating anatomical structures in either open or percutaneous procedures. The StealthStation® System is indicated for any medical condition in which the use of stereotactic surgery may be appropriate, and where reference to a rigid anatomical structure, such as the skull, a long bone, or vertebra, can be identified relative to a CT or MR based model or fluoroscopy images of the anatomy.

Example procedures include, but are not limited to:

**Cranial Procedures:**

Cranial Biopsies  
Tumor Resections  
Craniotomies/ Craniectomies  
Skull Base procedures  
Thalamotomies/Pallidotomies  
Pituitary Tumor Removal  
CSF Leak Repair  
Pediatric Catheter Shunt Placement  
General Catheter Shunt Placement

**ENT Procedures:**

Transphenoidal Procedures  
Intranasal Procedures  
Orbital Nerve Decompression Procedures  
Optic Nerve Decompression Procedures  
Polypsis Procedures  
Endoscopic Dacryocystorhinostomy  
Encephalocele Procedures  
Sinus procedures, such as Maxillary Antrostomies, Ethmoidectomies, Sphenoidotomies/Sphenoid Explorations, Turbinate Resections, and Frontal Sinusotomies

**Spinal Procedures:**

Spinal Implant Procedures, such as Pedicle Screw Placement

**Orthopedic Procedures:**

Total Knee Arthroplasty (Primary and Revision)  
Unicompartmental Knee Arthroplasty  
Minimally Invasive Orthopedic Procedures  
Total Hip Replacement (Primary and Revision)  
Tumor Resection and Bone/Joint Reconstruction  
Femoral Revision  
Placement of Iliosacral Screws  
Stabilization and Repair of Pelvic Fractures  
(Including but not Limited to Acetabular Fractures)



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

FEB 12 2003

Medtronic Surgical Navigation Technologies  
Victoria G. Rendon  
Clinical and Regulatory Affairs Associate  
826 Coal Creek Circle  
Louisville, Colorado 80027

Re: K030106

Trade/Device Name: StealthStation System Advanced Contour Registration Software  
Module

Regulation Number: 882.4560

Regulation Name: Stereotaxic instrument

Regulatory Class: Class II

Product Code: HAW

Dated: January 10, 2003

Received: January 13, 2003

Dear Ms. Rendon:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Ms. Victoria G. Rendon

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4659. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address  
<http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

*Miriam C. Provoost*  
for Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

Page 1 of 1

510(k) Number (if known): K030106

Device Name: StealthStation® System Advanced Contour Registration Software Module

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Placement of Iliosacral Screws  
Stabilization and Repair of Pelvic Fractures  
(Including but not Limited to Acetabular Fractures)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office Of Device Evaluation (ODE)

Prescription Use /  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use       

*Muriel C. Provost*  
(Optional Format 1-2-96)

(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

0469

510(k) Number K030106